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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,220	11/15/2001	Melvin Edwin Kamen	10554-089-999	4219

7590 10/22/2003

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EXAMINER	
SHOSHO, CALLIE E	
ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/002,220	KAMEN ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. All outstanding rejections are overcome by applicants' amendment filed 7/28/03.

The following rejections are necessitated by applicants' amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-28, 31, and 34 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for elevated temperatures of 90-200 ^{0}C or 100-200 ^{0}C, does not reasonably provide enablement for any elevated temperature. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]" *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. App. Inter. 1990). Otherwise **undue experimentation** would be involved in determining how to practice and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claims 1-28, 31, and 34 can be used as claimed and whether claims 1-28, 31, and 34 meet the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. App. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400, 1404 (Fed.Cir. 1988). Upon applying this

test to claims 1-28, 31, and 34, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since claims 1-28, 31, and 34 read on any elevated temperature such as 30 ^{0}C, 40 ^{0}C, 80 ^{0}C, 300 ^{0}C, 400 ^{0}C, etc.

(b) There is **no** *direction or guidance presented* for subjecting the decorated vitreous article to any elevated temperature.

(c) There is an ***absence*** *of working examples* concerning subjecting the decorated vitreous article to any elevated temperature.

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claims 1-28, 31, and 34.

4. Claims 29, 31, 32, and 34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Newly added claims 29 and 32 recite that the decorated vitreous article is subjected to an elevated temperature that is "greater than 90 ^{0}C". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

While there is support in the present specification for the recitation that the decorated vitreous article is subjected to an elevated temperature that is 90 to 200 ^{0}C or 100 to 200 ^{0}C, there is no support for the recitation of temperature that is "greater than 90 ^{0}C" which includes all temperatures above 90 ^{0}C. That is, the recitation of temperatures "greater than 90 ^{0}C" includes temperatures greater than 200 ^{0}C such as 210 ^{0}C, 250 ^{0}C, 300 ^{0}C, etc. for which there is no support in the present specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 21 recite that the decorated vitreous article is subjected to an "elevated temperature". The scope of the claim is confusing because it is not clear what is meant by "elevated temperature". Elevated as compared to what? Further, it is not clear what temperatures are encompassed by this phrase. Does the phrase "elevated temperatures" include temperatures of 30 ^{0}C, 40 ^{0}C, etc.?

Response to Arguments

7. Applicants' arguments filed 7/28/03 have been fully considered but they are not persuasive.

Specifically, with respect to the use of the phrase "elevated temperature", applicants argue that it would have been obvious to one of ordinary skill in the art that the range of temperatures to which the ink may be exposed to subsequent to UV curing in order to finally polymerize on the substrate is neither infinite or overly broad so as to require undue experimentation to determine and that although there is no upper limit on the temperature range, one of ordinary skill in the art would realize that exposure of the decorated vitreous article to a very high temperature after curing could be detrimental to the ink and thus, applicants argue that recitation of upper limit is not necessary to meet written description requirement.

In light of applicants' amendment to claims 1 and 21, it is the examiner's position that with respect to these claims, the question is no longer one of whether these claims meet the written description requirement, but rather the question is one of enablement. That is, while there is support for the recitation of "elevated temperature", it is the examiner's position that such recitation does not enable one skilled in the art to make and use the invention commensurate in scope with claims 1-28, 31, and 34. Undue experimentation would be needed to make and use the claimed invention given that the claims read on any elevated temperature and given that there is no direction or guidance presented in the specification for subjecting the decorated vitreous article to any elevated temperature.

While applicants argue that one of ordinary skill in the art would be able to determine an upper limit of the elevated temperature range given that very high temperatures could be detrimental and possible destructive to the cured ink on the decorated article, it is the examiner's position that for the reasons set forth in paragraph 3 above, undue experimentation would still be necessary to determine exactly what this "very high" temperature is given that the present claims

currently read on any elevated temperature. While the specification is enabling for elevated temperatures of 90-200 ^{0}C or 100-200 ^{0}C, there is no enablement in the specification for any elevated temperature.

With respect to claims 29 and 32 which each recite that the elevated temperature is "greater than 90 ^{0}C", as set forth in paragraph 4 above, it is the examiner's position that these claims fail to meet the written description requirement under 35 USC 112, 1st paragraph. Applicants' attention is drawn to MPEP 2163.05 III wherein it is noted that in *In re Wertheim*, 514 F.2d 257, 191 USPQ 90 (CCPA 1976), the courts upheld that when ranges described in the original specification included a range of 25% - 60% and specific examples of 36% and 50%, a corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the 25% to 60% range.

Similarly, with respect to claims 29 and 32, it is the examiner's position that while there is support in the present specification for elevated temperature of 90-200 ^{0}C or 100-200 ^{0}C, there is no support in the specification for recitation of elevated temperature of "greater than 90 C" because the phrase has no upper limit and reads literally on embodiments outside the 90-200 ^{0}C or 100-200 ^{0}C range.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Callie Shosho
Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/17/03